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THE SO-CALLED CELTIC MONUMENTS OF BRITTANY, FRANCE.

BY

W. WRIGHT HAWKES, LL.D.

The labors of the Society over which you preside, and to whose usefulness, and therefore success, you have for many years devoted your enlightened efforts, have a two-fold bearing. They not only increase our familiarity with the surface of the globe by promoting the exploration of regions hitherto but little trodden, by the discovery of new routes of communication, or by the laying bare old ones, hidden perhaps under the dust of ages ; but they practically enlarge the public domain of knowledge, by attracting attention to numberless facts and phenomena which, while they are within the province of special science, geography also, by its many-sided phases, embraces. It is this large and manifold sphere of activity of this body, and, I may add, the untiring conscientiousness with which its executive members do their work, that have not only earned for the American Geographical Society its prominent position on this continent, but have made it the peer of older societies of a similar nature in Europe, and their worthy co-laborer in the great intellectual workshop of the world. In making these preliminary remarks, Mr. President, I would not be understood as aiming chiefly at the laudation of this society. It needs not my praise. I make these observations rather as a justification, ladies and gentlemen, for calling your attention this evening to a subject which unquestionably lies within the scope of geographical studies, but which presents also some aspects of a strictly archæological nature. But I beg of you not to be alarmed at this term, archæological. I shall not attempt to lead you far into the misty intricacies of the science of archæology. And as a proof of the sincerity of this statement, I here propose an agreement between us, in our mutual interest. In order

that you may the better understand the objects to which I shall call your attention, I intend to illustrate them by stereoscopic views, as I proceed, instead of massing these at the end of my lecture. If, therefore, you will grant me your indulgence for these interruptions and any consequent want of connection in my remarks, I, on my part, will endeavor, in my treatment of the matter, to divest it of those dry technical terms which are better adapted to the student's closet than to the public lecture-room.

Mr. Bryant, in his touching and yet humorous response to the well-merited tribute to his character and ability paid last autumn by the Goethe Club, adopted this definition of man : "an animal delighting in antiquities." As is the case with all Mr. Bryant's remarks when he condescends to humor, the wit of this definition only brings out the more vividly the great underlying truth. The definition is a good one, for it involves the importance of the first of the two great questions so often asked : "Whence do we come? Whither are we going?" Science tries to answer the one—speculation the other. The two are, however, intimately connected; for all nations and races show, even in their latest development, traces of the vices and excellencies of their origin. It is in illustration of the first question that archæology, by revealing former customs, becomes the assistant of geography; and so striking are the results which these two sciences have attained within the last few years, that we are at times led almost to believe that we are getting close to the inner secret chamber in the temple of science, where the last great mysteries that surround man's history are to be revealed. But there will, doubtless, always be another inner chamber to be opened. It is this thought which, in one sense, has been so beautifully illustrated by M. Guizot in his History of Civilization. "In no one thing," says that elegant writer, though unfortunate statesman—"in no one thing has it, perhaps, been given to man to reach the goal; his glory consists in marching *towards* it." Still, this seeming approach to the great solution of our inquiries gives fresh vigor to research. It induces accuracy. As we seem to draw nearer and nearer to our object, we examine with more critical eye. Every theory is tested; every material element, every stone, every particle of dust connected with our discoveries is more closely scrutinized. The recollection of former, but now dispelled, illusions, puts us on our guard lest we indulge in fresh ones, or take as an authentic record of some

great event or race some such inscription as that on the stone so humorously described by Dickens as having been presented to the Pickwick Club. This fear is indeed now carried so far that the tendency is rather to excessive skepticism than to credulity as to the value of many of our discoveries. But we cannot wonder at this, for many are the monuments and ruins in various parts of the world that still baffle the investigations of the most acute observer. Among such ruins or monuments are some which I wish to make the subject of my remarks this evening. I allude to what are generally but somewhat vaguely termed the "Celtic remains" of the west coast of France. These remains form part only of the vast chain of such objects, many a link of which is broken, but which, taken in the whole, stretches from the base of Mount Atlas, in Africa, northward along the coasts of Portugal, Spain, France, Germany, Scandinavia and the British Isles, and as far northward as Iceland. Indeed, the traces of such objects are found even in Asia. We cannot decide with certainty as to the age of their erection. Yet we are not without some data which, as I shall hereafter show, enable us to form an opinion as to the general period to which they owe their origin. I will now simply say that they probably belong to what are usually called the pre-historic ages—ages which, like childhood's wonderland, appeal strongly to imagination and curiosity—ages surrounded by mists into which science is daily flashing its light further and further, causing their limits to recede. But until those mists shall be more dissipated, it would be presumption to decide upon the exact period of the erection of these monuments. Hence, in proportion to the interest they excite must be our caution in pronouncing. I have said that these ruins are not confined to France ; but it is in a certain part of that country, and in a comparatively limited region, that they are found in the greatest number, in the best state of preservation, and of the most colossal proportions. Hence my remarks must be taken as bearing chiefly upon that region.

In that part of France which is on the southern side of the large peninsula of Brittany, and in a northeasterly direction from us, distant only some eight or ten days by steam, and between the parallels of the forty-seventh and forty-eighth degrees north latitude, and between the fourth and the sixth degrees of longitude west from Paris, is the department of the country known as the "*Morbihan*." In that department, on the Atlantic, is the gulf or great bay of this

name, which applies to the whole department. This word Morbihan, in the Breton language, signifies "*small sea*," and is composed of three syllables, "mor," sea, and "bihan," small. As I have observed, this department forms part of the old province of Brittany, which, after years of semi-independence and of hostility to the French kings, became finally united to France in 1491 (one year before the advent of Columbus to our shores), by the marriage of Anne, Duchess of Brittany, to Charles VIII., son of Louis XI., so graphically described by Sir Walter Scott in his novel of "Quentin Durward." After the death of Charles VIII., who died in consequence of having carelessly run his head against a nail in the Castle of Amboise, near Tours, the union between Brittany and France was still further cemented by a second marriage between Anne and the Duke of Orleans, who became king of France under the title of Louis XII., and whose equestrian statue is seen over the portal of the Castle of Blois, about two hours from Tours. Having thus alluded to the old province of Brittany, in which lies this great bay of Morbihan, along the shores of which are these remarkable remains, we will refer to the bay itself.

This bay of Morbihan covers about 40,000 square acres, and is studded with islands, said to be over 300 in number. Many of these are little else than rocks projecting above the water, while others, like the Islands of Arzon, and the Isle des Moines (the Island of Monks), are of considerable extent, having villages on them inhabited by mariners. These are among the best sailors in the world, and their ancestors have from time immemorial borne that reputation. Indeed, it is now more and more widely believed among scientists that the early inhabitants of that region probably visited this continent anterior to the supposed visit of the Norsemen. The north shores of this great bay are exceedingly beautiful, being studded with private residences and chateaus, surrounded by parks and well cultivated fields. The other shores are rugged and bleak. Long sand-beaches and immense rocks give a weird and exceedingly striking aspect to the whole of the sea-shore. Indeed, as many of you are aware, there are few shores surpassing those of Brittany in the grandeur of their scenery. Several large rivers, the chief of which is the Auray, empty into the bay. On one of them lies the city of Vannes, the capital of the department of the Morbihan. It is a few miles distant from the bay itself. It is a

quaint old Breton city of some 14,000 inhabitants. It is full of historical remains of different periods—Celtic, Roman, and mediæval. It is supposed by some that this was the ancient Darri-origum of the Romans, while others, I believe with more reason, place that Celtic stronghold on the tongue of land, or, as we should say, “peninsula” of Lockmariaker—in the Breton language, “Place of Mary the Virgin.” Vannes was unquestionably a settlement of the Celtic tribe of the Veneti at the time of the Roman conquest, and, as you perceive, it retains in its sound traces of the name “Veneti.” It was on the islands of this bay and along its shores that this tribe of the Veneti dwelt. Indeed, it is now pretty well settled by history that it was on this bay of Morbihan that the great decisive naval engagement took place between Cæsar and the Celts, which ended in the destruction of Celtic independence, and led to the putting to death, by that stern conqueror, of the whole Senate or Council of the Celts. Many of you doubtless recall the interesting account given by Cæsar in his Commentaries of his victory over these Veneti. This tribe living around the shores of the Morbihan, and whose country lay some miles inland, were, as I said, expert sailors for the period. Their vessels were impelled by sails, made chiefly of skins sewed together. They could thus easily escape from, or run down the Roman galleys, propelled by oars. Cæsar had caused his fleet to be built to the south, near the mouth of the River Loire, about where St. Nazaire now stands, whence the present line of French steamers start for the West Indies and the Spanish Main. In order to deprive the Celtic vessels of the speed gained by their sails, Cæsar directed large scythes or knives to be fitted to long poles, and with these implements the Romans severed the ropes of skin by which the sails were secured to the masts, thus keeping the galleys at close quarters to the Celtic ships. Indeed, tradition—generally an exaggerated, but seldom a totally false echo from the past—still points to a large tumulus near the entrance to the Bay of Morbihan, as the spot where Cæsar stood watching the result of that severe and decisive sea fight. Indeed, this whole region is replete with interesting historical associations; for only five miles from this tumulus stands the old Monastery of St. Gildas de Rhuys, where some twelve centuries afterward the celebrated Abélard, known for his philosophy and his love for Heloïse, took refuge from his persecutors.

I have gone into this description of the locality of this naval engagement, because, according to most archæologists, the monuments I am about to describe were probably erected by ancestors of the men who thus resisted the Roman encroachments in the northwestern part of Gaul. As I have said, the actual date of the erection of these monuments is not yet ascertained. Indeed it is probable that to Cæsar and his army, that date was as great a mystery as to us, and probably a greater one, for in Cæsar's time the Romans were more engaged in making history than in studying it, and I am not aware that there then existed in Rome any extensive archæological museums. Be this as it may, we have evidence that the Romans, finding these monuments ready made to their hands, used some of them as places of deposit for their dead. These traces of Roman customs and civilization are easily distinguished from those connected with a time long anterior, coeval in all probability with the creation of these monuments. This circumstance gives great interest to the locality, for while in many cities and regions different strata of civilization, so to speak, present themselves, there are few places where, within such a narrow circuit, is to be found such a mass of prehistoric remains lying under the supervening ones of a more recent date. The area thus marked by prehistoric ruins of startling magnitude does not exceed, on the average, twenty-five miles of extent east and west, by a width of some ten or fifteen miles inland, taking the great Bay of Morbihan as the central point on the Atlantic. But it is on or near the shores themselves of this great bay that are found the most striking of these colossal monuments of a period long antedating all written records, or, I may say, traditions. But however much we may admire the evidences of the energy and achievements of those cultured, sagacious, iron-nerved butchers, the Romans, it is still these prehistoric remains and the mystery that in part shrouds them that give to this region its peculiar character. In moving among these old and still illegible milestones of ages, which, if their sculptures could only be deciphered, would show us in part the old road humanity has trodden, the traveler realizes the state of mind of Macaulay's hypothetical New Zealander, who is to stand some day on the ruins of London Bridge and wonder what kind of people built it.

Before describing these ruins in their separate character, or,

as we frequently find them, grouped together, though sometimes in a dilapidated condition, I may state that it is only since the beginning of the eighteenth century that these remains of a remote antiquity have been the subject of serious scientific inquiry. Even the Benedictine Monks, who at that period collected with so much care all the elements of the history of Brittany, make only a passing allusion to these ruins, which may be found in the work of Father Bernard, of Monfaucon, entitled, "Antiquity Explained and Illustrated by Figures," published in Paris in 1719. Since the beginning of our own century, however, these monuments have been closely investigated by some of the leading archæologists—among whom I would cite Professor Worsae, of Denmark; Ferguson, of Dublin (to whom was committed the decoration of the Hall of Nineveh at the Sydenham Palace); Dr. Simpson, of Scotland; Baron Bonestetten, of Switzerland; Renégalles, Closmadeuc and Fouquet, of Vannes; Prosper Merrimée; the great historian of France, Henri Martin; Bertrand, of the Museum of St. Germain, and Mr. Miln. German scientists have also written upon the subject. The admirable Celtic collection of the Polymathic Society of Vannes, and the private collection of the Count De Limur, of the same city, give evidence of the industry and care with which investigations of these remains are now pushed. The publications of this Polymathic Society of Vannes bring periodically to public knowledge every step gained on the line of accurate scientific inquiry. Indeed, so much attention is now directed to these objects, that they are visited by parties of scientific men annually from various parts of the world, and one gentleman from this country has taken up his residence in their neighborhood in order to pursue his archæological studies.

These interesting monuments were at first termed *Druidical*, for imagination attributed to the most remarkable of them the character of Druidical altars. The sober reasoning of subsequent archæologists has deprived many of them of that character, and the whole of them may now be conveniently arranged in five classes: First, the "MENHIRS"; second, the "PEULHUVENS"; third, the "DOLMENS"; fourth, the "TUMULI"; fifth, the "DRUIDICAL" altars. There is another appellation bestowed upon some of them, namely the "Cromlech"; but, strictly speaking, this term should apply rather to the form or position in which some of these ruins or monu-

ments are found than to the distinct nature of the objects themselves. The names of these monuments are of comparatively modern creation—not later than the sixteenth century. The English archæologists generally use the word “cromlech” to designate the “dolmens”; but “cromlech” signifies only a round place of stones. We will now consider the five classes I have mentioned, and we will take them up separately. Let me observe that any number of these objects grouped together form what is termed a “Celtic monument,” as we would use the expression to indicate a collection of columns or erections surrounding some main building, yet to be taken with it as a whole.

THE “MENHIRS.”

The word “menhir” signifies in the language of the country “high or long stone,” from the syllables “*men*,” stone, and “*hir*,” high. In Saxon these stones, when found arranged in order, were called “stonehenge.” The menhir is a large, raised stone, and always a monolith or stone of one piece. These menhirs are uncut, but not entirely rough. Their surface bears no mark of hammer, chisel or any other implements, and yet they are rounded, without corners or sharp angles, except such irregularities as are evidently the work of time. Some are of great size. The largest I have seen, and which is, I believe, the largest found, is about sixty-five feet in length by some twenty-four feet in circumference at its thickest part. This menhir is worthy of being considered separately, and we will therefore first consider the most imposing group, of lesser but yet enormous ones, as we find them near the village of Koernec or Carnac. This village, containing about 4,000 inhabitants, is situated about three miles from the shores of the bay to the northwest of the peninsula of Lockmariaker, to which I have called your attention. Traces of these stones are found running down close to the bay, but it is only about a mile from the village of Carnac that they present themselves in large groups, running from the southwest to the northeast. Some of them are from six to twenty feet high. Many have been broken off at their summits. They are set in the ground at distances varying from twelve to twenty-four feet, and so placed as to form, apparently, streets or alleys, varying in width from fifteen to forty feet. Roads have been laid out, and in one place a small village has grown up among

them, destroying of course the symmetrical arrangement of the stones. Utilitarianism, I am sorry to say, has also laid its heavy hand upon them, and the peasants have broken up many to obtain materials for their houses and fences. General Pommereul, who was the Military Examiner of the first Napoleon when he entered the army, states that in his day—say about 1780—these menhirs still covered a space about 8,000 feet in length by about 300 in width, and were in number about 4,000. A more recent plan and estimate, made by a Government engineer, shows the lamentable fact that in 1844 the number of these Carnac menhirs had been reduced to about 2,000. The work of destruction, I fear, has not ceased, but the Government, while protecting, as it zealously does in France, the rights of private property, is doing what it can to stop the destruction of these stones. These menhirs of Carnac, even in their mutilated forms, can easily now be traced over an extent of fifty acres; and it is evident that they formerly extended several miles in various directions, these groups being now distinguished by the names of the different localities or villages near them. The great group of Carnac is still the most imposing.

Sir Walter Scott, alluding to his favorite ruin of Melrose, says:

“He that would see fair Melrose aright
Must visit it by the pale moonlight.”

So I would say to those that visit the menhirs of Carnac. As the moon falls in fitful rays upon these huge stones, fancy can people the rows of these “megaliths” with the forms of some gigantic race long since passed away. Time and the elements, and, still more, the hand of man, have altered somewhat the shape of these stones, but their size and their base sufficiently indicate their probable original immense volume. But in order that you may better form an idea of their size, we will now look at one of those Carnac stones, which stands somewhat apart from its companions, though doubtless originally near them. It bears, as you see, in its fissures deep marks of Time’s ravages. By the most correct measurement which I could make, it is about 16 feet high by 12 feet around at the bottom, and it is believed that its depth in the ground is about 10 or 12 feet. I now call your attention to the largest menhir known. It has fallen down and lies in four parts, which, however, at the points where they are broken off, correspond as accurately as if moulded

into each other. In weight the stone is estimated at 400,000 to 500,000 pounds. It is of grey granite, like all the rocks of this region. It is smooth on the surface and rounded with tolerable uniformity, yet bears no mark of any implement. It is conical in shape, and a deep depression in the soil near its smaller end, induces the belief that it was inserted in the ground at this smaller end. This menhir, when erect, must have presented somewhat the appearance of an inverted cone. The total length of the menhir is about 65 feet, and it is about 24 feet around at the largest part. This menhir is not at Carnac, but on the peninsula of Lockmariaker, which contains, besides menhirs, perhaps the greatest number of dolmens, "Tumuli," within a comparatively limited space. This peninsula is only a short distance from Carnac, and is a great resort of scientific men on account of the variety of remains it possesses. It is indeed as worthy of a visit as Carnac itself. Before alluding to the supposed object of the erection of these menhirs at Carnac and elsewhere, let me say that there is another exceedingly striking menhir in an adjoining department, namely, that of Finistere. Indeed the largest menhir still erect, but isolated, is found in this department, in which the city of Brest is situated. But the one to which I now allude is near the town of Concarneau, one of the most important stations in France for the sardine fishery. This menhir is near a small village called Trégunc, about an hour's drive from Concarneau. It stands in a wild region, where large granite boulders are scattered around. The material of this menhir is granite, containing a large amount of quartz. Its height is about 30 feet above ground and some 14 feet around. On the top is a large stone cross, but the memory of man runneth not to the time when that rough granite cross was placed there. It guards the old Pagan monument, however, by throwing around it the protection of Christianity, and evinces the same beautiful spirit which has led the descendants of the old Celts of Ireland also to place under the shadow of the symbol of our faith the Pagan monuments due to the old Druidical system, or possibly to an earlier one, when man was blindly groping, but still groping after his God. The greatest historian of France, Henri Martin, has well described those Irish monuments in his volume of Notes published in 1875. There is one important fact, however, connected with the Carnac menhirs which has some bearing upon the vexed question of the object of their erection.

It distinguishes, indeed, the Carnac menhirs from others. In the numerous excavations that have been made around certain menhirs elsewhere, signs of inhumation or burial and traces of burnt sacrifices, of human bones and of those of animals, crumbling now to the touch, have been discovered, at a great depth, close to the lower part of the raised stones ; but in no well authenticated case have such signs or traces of burials been found around or even near these Carnac menhirs, except such as are of comparatively recent and probably Roman origin, as shown by the pottery and other objects now familiar to all archæologists. Indeed, as I have said, this whole region is full of Roman remains, such as pottery, bricks, and even of causeways. In reference to their position, these huge stones of Carnac evidently start from a common centre. Their alleys or streets branch off like radii, till at an immense distance, their fragments diminishing more and more, all traces of them are lost. But this absence of all signs connecting these Carnac stones with funeral rites, and the daily increasing insight into Pagan systems of belief have brought many of the best archæologists to the conclusion that the Carnac menhirs form a vast monument or temple, so to speak, of a religious character. This view is strengthened by two facts—first, that the central point whence these radii seem to proceed, indicates a vast cromlech or circular disposition of stones, and is supposed to have reference to the worship of the serpent, which, in its rounded form, as we know, was the emblem of eternity ; secondly, the frequent reproduction of the figure of the serpent on the walls and roofs of the dolmens, as you will see in the sculptures I am about to show you. It was once supposed by Cambry, the first President of the French Celtic Academy, and by others of his school, about the beginning of this century, that some astronomical object or reference presided at the erection of the monuments ; but this view is now generally abandoned by serious archæologists. There are, however, one or two circumstances, which we may call singular coincidences, which formerly gave rise to the astronomical theory, such as the position of a certain rocking stone pointing to the rising sun, but which stone, it is now admitted, owes its vacillations on its pivot to the action of the elements. Several such large blocks, however, are found in different parts of Brittany. I remember having seen one on the road to the menhir of Tregunc, which I mentioned. That

stone must weigh at least 150 tons, and yet a village child, ten years old, easily sets it in motion on its partially hidden pivot, evidently worn away by water.

If doubt, however, rests upon the real object of the erection of the Carnac menhirs, whether they are the remains of huge dwellings, or of temples shaped according to the religious conceptions of an age and race whose mysteries of faith we can neither solve nor indeed fully state, more light rests upon the question of the race to which these remains owe their origin. This question, however, I shall reserve for the close of this lecture, in order not to interrupt the consideration of the different objects in the five classes I have mentioned.

THE "PEULHVENS."

A few words with reference to them will suffice. The term "peulhven," composed in the Breton language of the syllable *peulh*, column, and *men* (in contraction *ven*), stone—namely, a narrow, straight column or pillar. These pillars have much less bulk than the menhirs, and are generally found alone, not in rows. In some cases they are evidently fashioned by the hand of man. I have seen some with one side quite smooth, and showing angles at the edges. The want of evidence connecting them with funeral rites, and the absence of human remains near them, have led archæologists to regard these peulhvens as merely commemorative monuments, erected to recall some distinguished man or striking event in the history of the race that erected them, the record of which is lost in the mists of time. Until those mists shall be pierced by the light of science, speculation alone can flash its uncertain rays around the origin and objects of those peulhvens. Perhaps we may attribute their origin and object to a custom common to all races, and continued down to our days, of erecting stone pillars to commemorate remarkable occurrences, a custom doubtless existing long anterior to the time when the crafty Jacob, flying before the wrath of his impetuous brother, and, perhaps, before the goadings of his own conscience, erected at Bethel a stone pillar—perhaps a peulhven—in commemoration of his strange vision or dream. But the obscurity which covers the origin of these Celtic peulhvens does not exist to the same extent in reference to the dolmens.

THE "DOLMENS."

This word "dolmen" (a corruption of the Breton word *taul*, a table, and *men*, a stone—a table-stone) is the appellation given in the country to the most interesting of all these prehistoric remains. These dolmens are exceedingly numerous around the Bay of Morbihan. Over two hundred in the department of the Morbihan have been exposed, and it is believed that others exist. They were unquestionably burial chambers—probably of chiefs or distinguished persons. In them are often found human bones, and frequently stone objects, such as axes, beside necklaces of valuable precious stones. In the museum of the Polymathic Society of Vannes, there is a cast of one of these skeletons, but whether of a Roman, deposited in the ready-made chamber, or of a Celt, cannot yet be determined. At the entrance of these dolmens have frequently been found the burned remains of the bones of animals, leading to the belief that before the dolmens were closed burial sacrifices were offered to the manes of those interred within. The monuments have different names, according to the countries in which they are found. In France they are called "dolmens;" in England, "cromlechs;" in Germany (owing to an erroneous idea as to their origin), "Hünengräber," or "Graves of the Huns;" in Scandinavia, "Jattestuer;" in Portugal, "Antas;" in Spain, "Cuevas de Minga," or "dolmins;" in Greece, "Taphos"; in Africa, "el R'Oul."

The country people of Brittany often term them "fairy grottoes," as in the case of the three large dolmens at the village of Plou-Harnel, near Carnac. Until the close of the sixteenth century they were in fact called cromlechs in France, which word the English still retain. But in the eighteenth century the founders of the Celtic Academy of France gave the name of dolmens to them, and this name is now generally used in that country. These monuments were formerly, but improperly, regarded as Druidical altars, used for human sacrifice. Found in the region where the Druids held sway, imagination, seizing upon the most striking and awful ceremonies of the Celtic priests, was naturally inclined to find in these remarkable remains of a remote age evidence of the frequency of the most objectionable features of the Druidical worship; but serious research has reduced such views to their proper value, and washed from these dolmens the blood-stains which heated fancy had connected with them. Indeed, so much light has of late years been

shed over Druidical priests and their theology that such errors are no longer possible. We may regard the celebrated memoir read by Duclos before the French Academy of Inscriptions in the last century—in 1746—as opening wide the gates to the flood of light which has since poured in upon the theology, customs, and underlying thought of the whole system of the Druids. Doubtless many a dark corner of that system is yet to be lighted up, but we know enough of it to discard much of the fabulous element hitherto attaching to it. This much has been acquired by science in relation to the old Druidical faith—the two great underlying ideas which formed the groundwork of the whole system in its uncorrupted state were, the belief in the unity of God, and in the immortality of the soul, which they thought was to pass from sphere to sphere in the gradual work of its perfection. In this positive belief it had an immense advantage over many Pagan systems. Indeed, Henry Heine, the erratic poet who gave much attention to Celtic studies, said, in his usual ironical manner, that among the Celts the belief in the immortality of the soul was so firm that he was of opinion that, if a Celtic debtor promised to pay in the next world, the period for liquidation would be considered by the creditor as quite satisfactory.

I fear that in our Christian communities the same view would not be taken by our banks and corporations; but then it is generally supposed that those bodies have no souls, and therefore not interested in the question of immortality.

These dolmens are chambers constructed of large slabs of stone placed vertically, the smooth side always turned inwards. Upon these vertical stones rest as a covering immense flat ones, sometimes of enormous size—hence the term *tauls* or table-stones given to them. The entrance to these chambers of dolmens is usually a corridor or gallery, generally narrower than the dolmen itself and formed of smaller vertical stones, covered also by flat ones. Frequently these galleries are preceded by circles of erect stones or menhirs. The circles are properly the *cromlechs*. The height of these galleries leading into the dolmens varies from five to nine feet on an average, and the width is sometimes not more than four and a half feet. The lengths of the galleries differ. In some the gallery is not more than six feet; in others it is much longer; while in many it is impossible to measure the original length, owing to the

partial destruction of the vertical stones forming it. The sides of some of these galleries are perfectly plain, and others are covered with rudely sculptured figures or forms, evidently showing a dominant thought on the part of the authors, although, so far, the deciphering of these forms and characters has completely baffled investigation. The largest dolmen in a fine state of preservation which France perhaps possesses is the Great Dolmen of Bagneux, near Saumur, in the valley of the Loire, where the large cavalry school of the French army exists. The gallery leading to this dolmen has been almost entirely destroyed, but the large chamber itself is in remarkable preservation. In size it is about twenty-three feet long, about nine feet high, and sixteen feet broad. Four enormous slabs laid horizontally form its covering or roof. I took an accurate measurement of one of these covering stones as a fair measurement of the others, and found it three feet thick, twenty-one feet long, and eighteen feet wide, and resting like the others upon vertical stones about nine feet high, forming the sides of the chamber. There are no sculptures or figures in this large dolmen of Bagneux, or of Saumur, as it is generally called.

It has been a mystery how these enormous slabs of stone were moved, and how they were raised to their present position. The first of these questions may now be considered as well-nigh solved. Professor Robert, of the Academy of Sciences, of Paris, read to that body, last year, a paper giving an account of some discoveries he had made in a partially dilapidated dolmen in the northeastern part of France. It seems that, around this dolmen, he discovered a number of large balls of stone which would appear to have been left on the ground after the completion of the monument—much in the same way as around the rear part of the Parthenon, at Athens, were found unfinished parts of columns of Pentelicon marble, intended probably by the architect for the construction of the temple, but not used. The stone balls found by Robert are believed to have been employed by the constructors of the dolmens to move these immense slabs from one place to another. In corroboration of this view, now generally adopted by scientists, Professor Robert states that a similar mode of moving the large rock on which stands the equestrian statue of Peter the Great at St. Petersburg was employed in comparatively modern times. A similar contrivance practically adopted every day in our streets in moving our large sidewalk slabs by

round wooden rollers, recalls the anecdote of setting the egg on its end by Columbus, and suggests, like all simple means, the natural reflection, "Any one might have thought of that." Why did scientists not think of it during centuries while wondering at the skill of those early constructors of the dolmens? How these large stones forming the roofs of the dolmens were raised to their present position is another question, to which as yet no satisfactory answer can be given. When its solution shall be known, we shall doubtless be equally surprised at the simplicity of the process.

The number of these dolmens in the department of the Morbihan is so great that time does not allow me here to do more than state that they all bear a general character, though marked by certain peculiarities. All these dolmens point to one object with reference to their origin. The human bones and stone adornments—some of jasper—induce the belief that they were stone chambers or vaults for the dead. One great difference between these dolmens, however, is the presence of certain sculptures inside some of them, and the total absence of such in others. The great dolmen of Bagneux which I have shown you is totally devoid of marks or sculptures, either on the exterior or interior, while the dolmen of the Isle of Gavrinis, or Isle of Goats, in the Bay of Morbihan, is literally covered with them. The peculiarities of these rude sculptures, which have thus far baffled the acuteness of the most skillful investigators, have rendered this dolmen a great point of attraction to the student of these singular remains. I will, therefore, direct your attention to this dolmen and give a particular description of them, to be followed by a stereoscopic view. This dolmen is covered by a clearly defined, circular tumulus, some 20 feet high and about 320 feet in circumference. This tumulus is composed entirely of small stones, lying loosely upon each other. They are, however, of tolerably uniform size, averaging from six to ten inches cube each, placed around the dolmen until the tumulus was formed. This tumulus would seem to have been originally much higher, inasmuch as the apex has been removed, leaving something of a plateau on the top. At the base of the tumulus, and on its northern part, is the entrance to the dolmen, leading down to which are steps of comparatively modern construction. The gallery from the end of these steps to the stone chamber is about 40 feet in length by 5 feet 8 inches or 6 feet in height, and about 4 feet in width. This gallery

is formed of vertical stones touching each other, but not connected in any way by cement or metal. The pavement in the gallery is of large flat stones, some of which are a few inches higher than the others. There are short steps at intervals of about two feet. This gallery leads up to a stone chamber nearly a third higher than the gallery itself. The sides of the gallery and of the chamber, as well as the roof, are covered with carvings which show, when taken as a whole, a certain unity of design, but considered separately, they disclose a marked difference from each other. These sculptures in most cases represent circles—some complete, others incomplete. It would take too much time were I to enumerate all the sculptures on the walls and the roofs of the different dolmens on the shores of the Bay of Morbihan. The views which I have given you illustrate their general character. They are found on several of the great dolmens of the peninsula of Lockmariaker, namely, on the one called the *Manne Lud*, or Mound of Ashes, and on the one in the same peninsula known as the Hillock of Cæsar, called *Manne Groach*, and also on the one near the great menhir which I have shown you as lying broken on the ground. The last-mentioned dolmen, from the size of its great covering-stone, is known as the table of the merchants or dealers who were wont, it is supposed, to gather around it. But as all these sculptures find their best representation and in the greatest number in the dolmen of Gavrinis, I shall confine my attention chiefly to that one. The sculptures of this dolmen will give you the best idea of the general character of the whole. The chief sculptures may be stated as of seven different classes or forms, all cut on the sides and roofs of the dolmen in question, some in relief, some sunk in the stone.

First, we have the figure called the “*CUPALIFORM*,” the small cup-shaped figures, representing circular bowls or cups, sunk in the stone. They are three or four inches in circumference, and are generally arranged, as you see them, in groups.

Second, we have the figure known as the “*PEDIFORM*”—the shepherd’s crook or curved stick. It bears some resemblance to one of the Hebrew letters. This figure is found not only in the dolmen of Gavrinis, but on many detached menhirs through the country. At Gavrinis it is produced in many singular combinations.

Third, we have the figure called the “*JUGIFORM*,” because it somewhat resembles an ox’s yoke.

Fourth, we have the "PECTINIFORM" figure, so called because it has somewhat the shape of a comb. This figure is often found on the large stones or *megaliths* of Scotland, according to Mr. John Stuart's statement in his work on the sculptured stones of that country.

Fifth, we have the "CELTIFORM" figure, so called because it resembles the stone ax, called by the scientists "*celtae*." This figure, as you see, is cuniform—in the shape of an ax or wedge. It is, perhaps, the only figure in these dolmens which represents a familiar object, unless we except the human feet, which are shown in one of these views. These stone axes are of different sizes—some nearly a foot in length. Some are of flint or other hard stone; some highly polished, like the one I have brought from the region I am describing, and which is deposited in our collection of interesting objects at the Society's building. For the authenticity of this one, which is now in possession of our Society, I would state that I owe it to the kindness of Mr. Pavot, and of another gentleman connected with the museum of the Polymathic Society of Vannes, of which the learned Dr. Closmadeuc is President. These *celtae* or axes are represented in a variety of groups or combinations on the sides of the Gavrinis dolmen; and in one of the groups, where the edge of the ax seems turned upwards, are carved figures in relief, which are thought to represent serpents more or less erect. The worthy Abbe Cahours, who is probably a better theologian than an archæologist, and who has written a long description of these sculptures, has allowed his theological imagination to guide his pen in accounting for these serpentine figures. He finds in them a clear allusion to "original sin"! His sacerdotal character presupposes, of course, a total ignorance of the details connected with a lady's toilet, or he probably would have discovered in the "PECTINIFORM" or *comb-shaped* figure the original comb used by our common mother, Eve, in doing up her back hair!

Sixth, is the "SCUTIFORM" or *shield* shaped figure. It is one of the most striking sculptures in these dolmens. These figures represent shields or cartouches, with figures of cups or small circles inside of them, and from the top of these shields flames seem represented as proceeding.

Seventh, is the ax-formed figure, representing stone axes of dif-

ferent sizes, with and without handles, and sometimes the sharp point of the axe above the handle, like the point of a pick.

These classes embrace the chief figures sculptured on the dolmens.

THE "TUMULI."

Of these there are about thirty-five large ones in the Department of the Morbihan. Many of these differ from all those yet discovered of Africa, in the fact that the African tumuli, according to M. Rénan, have no dolmens. Some of these elevated mounds, such as the great tumulus of "Tumiac," not far from the shore of the Atlantic—a few miles from the Bay of Morbihan—are of great height. The one at Tumiac is visible a great distance at sea, and is about 90 feet high and about 500 feet in circumference.

The object of these tumuli is peculiar. The dolmens would seem to have been first erected, and around them have been placed immense quantities of stones, held together by mud of the bay, or a kind of marl almost impervious to water—thus keeping the mass of stones compact. This marl is thick and has become very hard. Over the primitive cement has been placed vegetable mould to a thickness of several feet; and upon this, in time, of course, grass and trees have grown. This conglomerate mass of stones and marl surrounding the dolmen is known by the term "gal-gal." This word is peculiar. It is Hebrew, and is formed by the repetition of the syllable "gal," signifying something circular. We find this term used in several places in the Hebrew text of the Old Testament.

THE DRUIDICAL ALTARS.

As I have said, the dolmens were once held to be Druidical altars; but the fact is now established that these dolmens, in whatever condition we now find them—whether partially buried in the earth, or entirely exposed like those of Corcorro and Bagueux, which I have shown you—were covered originally in primitive times by their separate tumuli. Hence they could not be used as altars for sacrifice unless the sacrifice were first made upon them before they were covered with the tumuli—a theory which there is not the slightest evidence to support. We know, however, now, that it was a rule among the Druids not to sacrifice upon altars of hewn stone. The stones used for those ceremonies were entirely

rough. Many such of great size have been found in the Morbihan, indicating by certain marks the object to which they were applied. Thus upon some of these stones grooves have been found leading from the centre of the slab down to other and deeper ones connected with round basins excavated in the stones, as if adapted to the reception of the blood of the victims. Such stones, now held to have been altars, are met with scattered about in this department. There is one of these stones in the very city of Vannes. As these grooves are on the top of the stones, it is difficult to obtain a horizontal view of the entire stone. But whatever there may be of truth or of mere imagination in the picture drawn by Cæsar in his Commentaries, as to the practice of the Druids enclosing their victims in large wicker frames and then burning them, we now know that the human victims offered in the mysterious rites of these Celtic priests were of three kinds—first, those who, through religious enthusiasm, offered themselves voluntarily as propitiatory sacrifices; second, those captured in war; third, the criminals whose execution for misdeeds took the form of a religious ceremony. If distance is said to lend enchantment to the view, it may often exaggerate the reprehensible features of many a religious system. So, doubtless, is it with reference to the charge brought against the Druids. Many—I may say most—of the pagan religions admitted human sacrifice. We find the proof of this in the old tradition of the sacrifice of Iphigenia, and even the old Hebrew faith is, perhaps, not exempt from a similar blot, if we admit the popular theory of the sacrifice of the beautiful daughter of Jephthah. It is, however, to the race vaguely termed Celts, and in tribes over which the Druids spiritually presided, that we chiefly attach this practice of offering human sacrifices; and it is to that race that these monuments and sculptures of grooved stones are believed to belong; but wide-reaching questions are involved in that opinion. Into these, in pursuance of my promise not to weary you with details, I will not enter to any great extent. A few words will suffice to indicate some of these questions. Do all these monuments owe their origin to the same race? Their general character unequivocally points to their erection by the same race. There will still remain, however, three great questions covering substantially the whole ground: What is that race? In what age, and why, were these monuments erected? I wish it were in my power,

without pretending to know more than is really known, to give a categorical answer to these questions. No one can now do so; and, in the language of oriental imagery, I can only say: "The pipe of surmise has not yet been smoked down to the ashes of certainty on these points." Though we cannot indeed fix the dates of these stones, we can with tolerable accuracy determine certain characteristics of the different ages within which they were erected. These are divided by archæologists into three great periods preceding historic times. First, the age of rough chipped stone; secondly, the age of the polished stone; and thirdly, the age of bronze. Each of these periods doubtless overlapped or ran into the other. Thus, unquestionably, in these monuments, which, by their appearance, may be supposed to belong to the rougher age, when the rude stone axes and knives would seem to have been coarsely fashioned by the simple process of chipping, are also to be found weapons of silex, and other stone of exceeding polish and sharpness. We are, therefore, as yet unable to say positively whether they were all erected in the second, or in the first of these stone periods. But the great number of polished stone implements discovered in them has induced the belief with many, that if any of these monuments were erected in the age of the rough or chipped stone, they must have been used subsequently during that of the polished stone, and the same remark may be made as to the age of bronze.

Against this theory, however, very serious objections can be raised. It is evident, that by far the greater number of these dolmens—probably all—were covered by their respective tumuli. With time, many of these mounds have been leveled, and the dolmens exposed. But if the others still under their tumuli contain implements of both the rough and of the polished stone periods, the question presents itself—may not all these artificial mounds have been placed over the dolmens at a period later than that of their erection? or may they not have been opened at a subsequent period, and then again closed? We have no evidence that either of these suppositions is founded. The inference is therefore strong that the mounds and dolmens are of the same period, and that period must have been the age of the polished stone. But though we cannot fix the date of the erection of these monuments, I believe that the objects found in them will aid in tracing the races to which these remains owe their origin. These monuments indeed are called

"Celtic." This, however, is a somewhat vague term, for it may be said that with the ancients, and especially with the Greeks, this term meant little else than a general appellation given to the people of the northern and central parts of Europe, of whom, in the time of the Greeks, little was known. Ethnology has increased our knowledge of the subject, but that knowledge is still very imperfect. With us the term "Celt" is now generally applied to races, part of which are known as Gauls or Gaels in the northern and western part of Europe, and some of which are of light complexions and hair and some of dark hair. But many ethnologists and historians draw a distinction between the "Celts" and the "Gauls" or "Gaels," classing the former as the dark, and the latter as the light-haired men. Both are found in the Morbihan. It is contended that the "Gauls" or "Gaels" conquered the "Celts," and that both were then confounded under one name—the "Celts" taking the appellation of their conquerors. These "Gauls" or "Gaels," were, therefore, either fresh emigrants from Asia, or descended, like the "Celts," possibly, through ages from the earliest Aryan emigrants, who, from their long settlement in Europe were for a long time considered indigenous, because they had lost all recollection of their origin.

If then these monuments are due to the earliest emigrants, we cannot as yet compute the immensely remote date of their erection. If, however, they are the work of either the "Celts," or of the "Gauls" or "Gaels," that date, it would seem, must be placed back, at least, to the fourteenth or sixteenth centuries before our era. But much doubt covers both questions—of race, and date.

Will these questions always remain a mystery? The hieroglyphics of Egypt, before the labors of Champollion, of Lepsius, and others, were deemed illegible. They may now be read with remarkable accuracy. The Assyrian wedge-shaped marks or cuniform inscriptions no longer withhold their lessons, and science is applying its searching glance to these "so-called Celtic remains" of Brittany. What secrets indeed of the material world are unfathomable to patience, acute observation, and time? If it be true that Cuvier could construct the model of the most rare specimen of natural history after inspection of a single bone, may we not hope that, upon these monuments and their sculptures, science may yet

breathe, and make them live for our intelligence? These silent stones may yet speak to us with no uncertain voice.

In this branch of knowledge, as in others, research will, in time, probably reveal facts which may give us a sure starting point for fresh investigations. And it is upon *facts*, and not upon mere theory or conjecture, that all sciences must rest. Thus resting, their results add to our bulk of ascertained truth. What, indeed, are all our sciences but segments of one vast whole, which, in view of the shortness of our sojourn here, we cannot master in its unity, and which we therefore divide into sections, to which we give the conventional terms of distinct sciences? These, however, touch each other, and form the great circle of Truth, which starts from the very throne of all Wisdom, touches in its circuit the universe at every point, moral, intellectual, and material, and leads us back to the source of its Divine origin. If this is so—and so it must be, since truth is man's heritage—we may then boldly push every science to its utmost legitimate limit, knowing that it can never conflict with the great whole of which it is part.